

NOV 03 2003

U.S. PATENT & TRADEMARK OFFICE

PTO/SB/21 (08-03)

Approved for use through 08/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

13

Application Number

10/604525

Filing Date

7/28/2003

First Named Inventor

Rodnunsky

Art Unit

Examiner Name

Attorney Docket Number

JR-P0002

## ENCLOSURES (Check all that apply)

- ☒ Fee Transmittal Form
- ☒ Fee Attached
- ☐ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/Incomplete Application
- ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53

- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☒ Petition
  - ☐ Petition to Convert to a Provisional Application
  - ☐ Power of Attorney, Revocation
  - ☐ Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) \_\_\_\_\_

- ☐ After Allowance communication to Technology Center (TC)
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Other Enclosure(s) (please identify below):

Post Card

Remarks

See enclosed Petition to Make Special

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name

Joseph J. Mayo 53,288

Signature

*Joseph J. Mayo*

Date

10/31/03

## CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name

Joseph J. Mayo 53,288

Signature

*Joseph J. Mayo*

Date

10/31/2003

This collection of information is required by 37 CFR 1.01. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

NOV 03 2003

PTO/SB/17 (10-03)

Approved for use through 07/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**FEE TRANSMITTAL  
for FY 2004**

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

(\$)

**Complete if Known**

Application Number

10/604525

Filing Date

7/28/2003

First Named Inventor

Rodnunsky

Examiner Name

Art Unit

Attorney Docket No.

JR-P0002

**METHOD OF PAYMENT (check all that apply)**☐ Check ☒ Credit card ☐ Money Order ☐ Other ☐ None☐ Deposit Account:Deposit  
Account  
Number  
Deposit  
Account  
Name

502689

Delina Law Group

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 770	2001 385	Utility filing fee	
1002 340	2002 170	Design filing fee	
1003 530	2003 265	Plant filing fee	
1004 770	2004 385	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
<b>SUBTOTAL (1)</b>			(\$)

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent Claims	-20** =	X	
Multiple Dependent	-3** =	X	

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 86	2201 43	Independent claims in excess of 3
1203 290	2203 145	Multiple dependent claim, if not paid
1204 86	2204 43	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2)**

(\$)

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity Small Entity

Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for ex parte reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 420	2252 210	Extension for reply within second month	
1253 950	2253 475	Extension for reply within third month	
1254 1,480	2254 740	Extension for reply within fourth month	
1255 2,010	2255 1,005	Extension for reply within fifth month	
1401 330	2401 165	Notice of Appeal	
1402 330	2402 165	Filing a brief in support of an appeal	
1403 290	2403 145	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,330	2453 665	Petition to revive - unintentional	
1501 1,330	2501 665	Utility issue fee (or reissue)	
1502 480	2502 240	Design issue fee	
1503 640	2503 320	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	130
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 770	2809 385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 770	2810 385	For each additional invention to be examined (37 CFR 1.129(b))	
1801 770	2801 385	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

**SUBTOTAL (3)**

(\$)

130<sup>00</sup>**SUBMITTED BY**

(Complete if applicable)

Name (Print/Type)

Joseph J. Mayo

Registration No.

53288

Telephone

858-442-5877

Signature

Joseph J. Mayo

Date

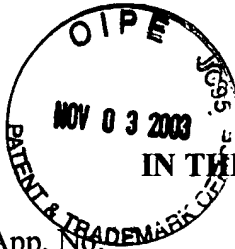
10/31/03

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

App. No. : 10/604525 Confirmation No.: 1524  
Applicant : Rodnunsky Docket No. : JR-P0002  
Filed : 7/28/2003 Customer No. : 36067  
TC/A.U. : UNKNOWN  
Examiner : UNKNOWN

For: SYSTEM AND METHOD FOR MOVING OBJECTS WITHIN  
THREE-DIMENSIONAL SPACE

---

**PETITION TO MAKE SPECIAL UNDER 37 C.F.R. 1.102(d)**

Mail Stop Petition  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Applicant hereby requests the above-identified application be Made Special in accordance with the Accelerated Examination procedure of MPEP 708.02 VIII.

Applicant submits that all claims in the pending application are directed to a single

invention.

11/05/2003 09:00:00 00000000 10604525

01 FC:1450

130.00 00

Applicant has conducted a pre-examination search in class/subclasses 104/180, 348/144, 157, 212/76, 83, 248/58, 254/264, 352/243. A detailed discussion of the references found in the pre-examination search is included herein with patentability discussed to the particularity required by 37 CFR 1.111 (b) and (c).

Applicant submits the fee for Accelerated Examination as set forth in 37 CFR 1.17 (h).

### **Pre-examination Search**

Applicant searched the following classes for relevant references: 104/180, 348/144, 157, 212/76, 83, 248/58, 254/264, 352/243. The relevant patents conducted during the search are identified below.

#### **1. U.S. Patent No.s 4,710,819 and 4,625,938**

U.S. Patent No. 4,710,819 (hereinafter the '819 patent), issued to Brown, discloses an apparatus configured to move an object in three-dimensional space using a set of at least three cables.

The '819 patent requires at least three cables that are attached to an object. The apparatus relies on controllable angular isolation in order to prevent pendulum motions in the object. For linear direction of an object, the apparatus requires independent movement of all cables in the system. This inter-dependence of cable movement regardless of object movement makes system control non-trivial. Movement of an object along the X-axis for example is not possible through the movement of one cable, but instead requires the movement of all supporting cables in unequal amounts since in general an object attached to at least three cables requires that the lengths of all cables to change when moving in a straight line in a given direction. This is the reason why

complex control software is required, the apparatus needs all ropes to move in a coordinated manner for even simple linear movements.

Applicant's Claimed Invention is Different

An embodiment of Applicant's invention moves an object in three-dimensional space via an X movement rope configured to move the object, a Y movement rope configured to move the object and a Z movement device configured to move the X movement rope and the Y movement rope. The '819 Patent does not disclose a Z movement device as claimed.

**2. U.S. Patent 5,440,476**

United States Patent No. 5,440,476 (hereinafter the '476 patent) describes a system that positions a work point in three-dimensional space using at least three reeving systems. In addition, the control system requires all ropes move in a coordinated way to shorten and lengthen the amount of deployed cable in each cable used in the apparatus. For linear direction of an object, the apparatus requires movement of all cables in the system. The '476 patent also requires at least three reeving systems be connected to whatever object is to be moved.

Applicant's Claimed Invention is Different

An embodiment of Applicant's invention moves an object in three-dimensional space via an X movement rope configured to move the object, a Y movement rope configured to move the object and a Z movement device configured to move the X movement rope and the Y movement rope. The '819 Patent does not disclose a Z movement device as claimed.

### **3. U.S. Patent 5,673,625**

United States Patent No. 5,673,625 (hereinafter the '625 patent) describes a system for yarding logs that moves the logs within three-dimensional space. The system moves logs along the path set up by a single yarding cable. A method and apparatus for yarding logs by introducing slack is provided for use with a mono-cable system having a continuous loop of cable strung through a logging area along a path that the harvested timber is conveyed. The invention includes advancing the mono-cable system along the path of the mono-cable system until a length of cable not being used to secure a log is available. Slack is then created in the cable of the mono-cable system, after which the cable is transported to a log located on either side and distant from the path. The choker is then secured to the log, and the hook of the choker is secured to the cable. The slack of the cable is then eliminated, such that the secured log is retrieved from its felled position distant from the path to a position adjacent the path. The cable is then advanced such that the hook of the choker is caught on a stopper of the mono-cable system, and the log is moved along the path to a transport location from which the log is removed from the logging area.

#### **Applicant's Claimed Invention is Different**

An embodiment of Applicant's invention moves an object in three-dimensional space via an X movement rope configured to move the object, a Y movement rope configured to move the object and a Z movement device configured to move the X movement rope and the Y movement rope. Applicant's invention uses a Z movement device and the '625 Patent does not.

### **4. U.S. Patent 5,562,040**

United States Patent No. 5,562,040 (hereinafter the '040 Patent) describes a system for moving objects via an aerial ropeway that includes a haulage rope that travels along a path between two stations, and comprises two driving wheels. The system moves objects beneath a point under the line between the two stations.

Applicant's Claimed Invention is Different

In contrast to the '040 Patent an embodiment of Applicant's invention moves an object in three-dimensional space via an X movement rope configured to move the object, a Y movement rope configured to move the object and a Z movement device configured to move the X movement rope and the Y movement rope. The '040 Patent does not use a Z movement device.

**5. U.S. Patent 4,523,525**

United States Patent No. 4,523,525 (hereinafter the '525 Patent) describes a system for boatless waterskiing that effectively moves objects beneath an endless cable whose path is defined by support structures.

Applicant's Claimed Invention is Different

An embodiment of Applicant's invention moves an object in three-dimensional space via an X movement rope configured to move the object, a Y movement rope configured to move the object and a Z movement device configured to move the X movement rope and the Y movement rope. The '525 Patent does not disclose a Z movement device as claimed.

## **6. U.S. Patent 4,136,786**

United States Patent No. 4,136,786 (hereinafter the '786 Patent) describes a system yarding logs. A rigging arrangement and yarder are disclosed for yarding in which a single cable is used and which serves as a skyline for supporting a carriage. The carriage moves between the yarder and upper anchor point along a line.

### **Applicant's Claimed Invention is Different**

An embodiment of Applicant's invention moves an object in three-dimensional space via an X movement rope configured to move the object, a Y movement rope configured to move the object and a Z movement device configured to move the X movement rope and the Y movement rope. The '786 Patent does not disclose a Z movement device as claimed.

## **7. U.S. Patent 6,566,834**

In U.S. Patent 6,566,834, (hereinafter the '834 Patent) an invention is disclosed in which a payload can be moved and angularly positioned within three-dimensional space. The invention requires a computer control system in order to calculate the change in lengths of the support ropes in order to move the payload between two points. The invention appears to require power at the platform and locates the winches for the system on the platform, further reducing the payload capacity of the platform. The invention requires at least 6 cables in order to operate.

### Applicant's Claimed Invention is Different

An embodiment of Applicant's invention moves an object in three-dimensional space via an X movement rope configured to move the object, a Y movement rope configured to move the object and a Z movement device configured to move the X movement rope and the Y movement rope. The '834 Patent does not disclose a Z movement device as claimed.

### **8. U.S. Patent 5,585,707**

In U.S. Patent 5,585,707, (hereinafter the '707 Patent) an invention is disclosed in which a robot or person can be readily moved within three-dimensional space. The payload is limited and the support structure is small scale. If the structure were to be scaled up, obstacles such as goal posts or light poles would inhibit the motion of the payload through a path between two points defined within the cube, since there are so many wires required to practice the invention. Also, the invention would not appear to allow the Z-axis to vary beneath the cube, and the size of the cube support structure to service a large volume of space would be extremely expensive to build on the scale required. The platform holds motors that limit the amount of payload that can be carried. Complex control must be used in order to keep the tensions in the cables coordinated from above and below the platform.

### Applicant's Claimed Invention is Different

An embodiment of Applicant's invention moves an object in three-dimensional space via an X movement rope configured to move the object, a Y movement rope configured to move the

object and a Z movement device configured to move the X movement rope and the Y movement rope. The '834 Patent does not disclose a Z movement device as claimed.

#### **9. U.S. Patent 5,568,189**

In U.S. Patent 5,568,189, (hereinafter the '189 Patent) an invention is disclosed for moving cameras in three-dimensional space. An aerial support platform is supported to extend below, and intermediate of, a pair of parallel cables mounted along respective opposite walls of a studio. A carriage rides on each of the parallel cables, and another pair of cables extends to connect the pair of carriages. A third carriage sits on the other pair of cables, and a series of further cables extend vertically from that carriage to the platform. The pair of carriages positioned on the opposite walls of the studio are controlled to move in tandem, and the third carriage has controlled movement between those carriages. The platform may be raised or lowered relative to the third carriage, and thus has three linear axes of motion.

#### **Applicant's Claimed Invention is Different**

An embodiment of Applicant's invention moves an object in three-dimensional space via an X movement rope configured to move the object, a Y movement rope configured to move the object and a Z movement device configured to move the X movement rope and the Y movement rope. The '189 Patent does not disclose a Z movement device as claimed.

## 10. U.S. Patent 4,106,638

In U.S. Patent 4,106,638, (hereinafter the '638 Patent) an invention is disclosed for loading and unloading ships. The system moves objects along a line and then vertically moves the objects into and out of a ship. The system moves objects over a defined line beneath the support structure to a ship.

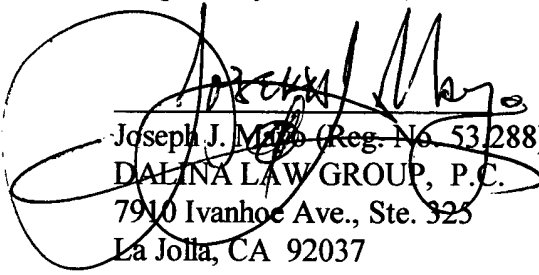
### Applicant's Claimed Invention is Different

An embodiment of Applicant's invention moves an object in three-dimensional space via an X movement rope configured to move the object, a Y movement rope configured to move the object and a Z movement device configured to move the X movement rope and the Y movement rope. The '638 Patent does not disclose a Z movement device as claimed.

## CONCLUSION

In view of the above the Applicant requests that the Petition to Make Special be granted and the examination of the application be advanced.

Respectfully Submitted,



Joseph J. Maffeo (Reg. No. 53,288)  
DALINA LAW GROUP, P.C.  
7910 Ivanhoe Ave., Ste. 325  
La Jolla, CA 92037  
Tel. (866) 221-6964

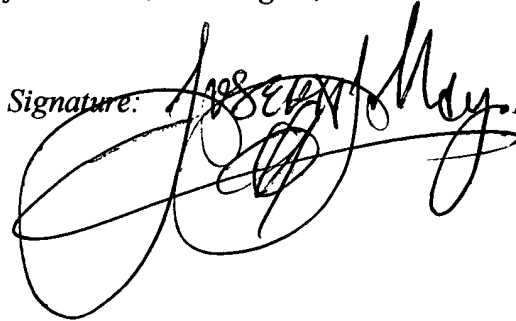
**Correspondence Info:**

***CERTIFICATE OF MAILING***

**Customer Number 36067**

*This is to certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Assistant Commissioner for Patents, Washington, D.C. 20231 on October 31<sup>st</sup>, 2003.*

Signature:

A handwritten signature in black ink, appearing to read "Joseph M. May". The signature is stylized with large loops and a long horizontal stroke at the end.

Date: October 31<sup>st</sup>, 2003